



PATENT
P56268

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

JUN-HO SUNG *et ali*

Serial No.: 09/752,513

Examiner: YUSSUF, SAJID

Filed: 3 January 2001

Art Unit: 2141

For: INTERNET INTERFACE SERVICE SYSTEM AND METHOD PROVIDING
PUBLIC INTERNET ACCESS TO USERS CARRYING MOBILE
TERMINALS (as amended)

TRANSMITTAL OF APPEAL BRIEF FEE

Commissioner for Patents
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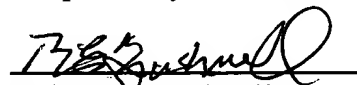
Sir:

Pursuant to *Manual of Patent Examining Procedure* §1204.01, it is noted that the fee for filing an Appeal Brief has been previously paid on the 24th of August 2005. Accordingly, no fee is incurred by filing of the present Appeal Brief (Paper No. 20).

In view of the above, please **do not** charge any fee to the deposit account of Appellants' undersigned attorney.

Should any questions arise, the Examiner is requested to telephone Appellants' attorney.

Respectfully submitted,


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Folio: P56268
Date: 11/20/06
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PATENT
P56268

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES**

In re Application of:

Appeal No. _____

JUN-HO SUNG *et al.*

Serial No.: 09/752,513

Examiner: KANG, PAUL H.

Filed: 3 January 2001

Art Unit: 2144

For: INTERNET INTERFACE SERVICE SYSTEM AND METHOD PROVIDING
PUBLIC INTERNET ACCESS TO USERS CARRYING MOBILE TERMINALS
(as amended)

APPEAL BRIEF

Paper No. 20

Mail Stop Appeal Brief-Patents

Commissioner for Patents

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Alexandria, VA 22313-1450

Sir:

Pursuant to Appellants' Notice of Appeal filed on 18 September 2006, Appellants hereby appeal to the Board of Patent Appeals and Interferences from the final rejection of claims 1 thru 24 as set forth in the final Office action mailed on 17 May 2006 (Paper No. 051506).

Folio: P56268

Date: 11/20/06

I.D.: REB/JGS/kf

I. REAL PARTY IN INTEREST

Pursuant to 37 CFR §41.37 (as amended), the real party in interest is:

SamSung Electronics Co., Ltd.
#416, Maetan-dong, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 442-742, Republic of KOREA

as evidenced by the Assignment executed by the inventor on 27 December 2000 and recorded in the U.S. Patent & Trademark Office on 3 January 2001 at Reel 011419, frame 0469.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals and no interferences known to Appellants, Appellants' legal representatives or the assignee which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1 thru 24 stand finally rejected. Of the latter claims, claims 1, 10 and 11 are independent, whereas the remaining claims are dependent.

IV. STATUS OF AMENDMENTS

Amendment on Appeal amending claims 3, 10, 15 thru 18, 20, 22 and 23 was filed concurrently with the Appeal Brief on 24 August 2005 in support of the Notice of Appeal filed on 28 June 2005. In view of issuance of a non-final Office action subsequent to the Appeal Brief and Amendment on Appeal filed on 24 August 2005, the amendments set forth in the Amendment on

Appeal filed on 24 August 2005 are believed to be entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to an Internet interface service system and method enabling a user to be provided with high-speed Internet connection services by connecting to the Internet interface service system, the system and method providing high-speed connection service and executing charges through the use of a portable computer which the user carries with himself in public places.

Referring to Figure 1, the Internet Interface service system and method are capable of connecting portable mobile terminals 10 of users (such as notebook computers, palm top computers, network computers, PDAs, and the like) to a communication (or Internet) network 5 in public places (such as airports, conference places, bus terminals and the like). In accordance with the system and method, the mobile terminals 10 are connected via the communication network 5 to any of a plurality of information providing servers 4 for receiving information. A settlement server 3 is provided for performing electronic settlements of communication connection charges for the mobile terminals 10. An Internet interface unit 1 is provided for enabling the mobile terminals 10 to be connected to the communication network 5 and for charging the users of the mobile terminals 10 for the usage of the Internet interface service system. A central management server 2 manages the Internet interface unit 1, allocates dynamic IP addresses when the mobile terminals 10 of users are connected to the Internet interface unit 1, and releases the allocated addresses upon termination of communication of the

mobile terminals 10.

As recited in independent claim 1, and further referring to Figure 1, an Internet interface service system providing high-speed connection services to mobile terminals 10 carried by respective users in public places comprises: an Internet network 5 for providing the high-speed connection services; plural interface units 1, one for each of said mobile terminals 10, for connecting the mobile terminals 10 of said respective users to the Internet network 5 so as to provide the respective users with Internet services; and a central management server 2 connected to the Internet network 5 and responsive to the input into the interface units 1 of settlement information relating to the mobile terminals 10 for carrying out usage authentications of the mobile terminals 10 by performing data communications with an external settlement server 3 which carries out settlements upon reception of the settlement information from the interface units. The central management server 3 allocates dynamic IP addresses enabling the mobile terminals 10 to carry out Internet searches, and the central management server 3 is responsive to reception, by a given mobile terminal 10 from a corresponding interface unit 1, of a signal terminating a corresponding Internet connection for releasing a corresponding dynamic IP address allocated to the given mobile terminal 10 and for transmitting charge information with respect to a corresponding Internet connection service of the given mobile terminal 10.

As recited in independent claim 10, and referring to Figures 1, 2 and 5, an Internet interface service method providing high-speed connection services to mobile terminals 10 carried by

respective users in public places comprises the steps of: when a mobile terminal 10 of a user and an Internet interface unit 1 are connected by any of a local area network (LAN) cable provided in a first communication unit 22 and a LAN cable connected to a LAN card, establishing a communication channel with the mobile terminal 10 by use of a control unit 21 so as to activate a communication unit in the mobile terminal 10, the control unit 21 being included in the Internet interface unit 1; outputting from the control unit 21 a message requesting user entry of settlement information in order to settle charges for use of the Internet interface unit 1 by the mobile terminal 10 of the user after the establishment of the communication channel, and, when the user enters the settlement information, reading the settlement information, transmitting the settlement information to a settlement server 3 through a central management server 2, and receiving a settlement approval from the settlement server 3 (*see* Figure 5); after receiving the settlement approval, receiving a dynamic IP address from the central management server 2, allocating the received dynamic IP address to the mobile terminal 10, and performing data communications by means of the mobile terminal 10 through the Internet interface unit 1 and an Internet network 5 connected to the Internet interface unit 1; and when a predetermined connection termination signal is inputted to the Internet interface unit 1 by a connection termination menu provided in one of the mobile terminal 10 and the Internet interface unit 1, terminating the communication channel of the mobile terminal 10 by means of the control unit 21, outputting charge information stored in a storage unit 24 to an output unit 26 and a display unit 27 while, at the same time, transmitting the charge information by means of the control unit 21 to the central management server 2 and the settlement server 3 through a second communication unit 23, thereby performing a charging function.

As recited in independent claim 11, and referring to Figure 1, an interface service system for use with a network 5 providing high-speed connection service to mobile terminals 10 carried by users in public places comprises: plural interface units 1, one for each mobile terminal 10, for connecting each mobile terminal 10 to the network 5; and a central management server 2 for controlling use of the interface units 1 by the mobile terminals 10. The central management server 2 is responsive to entry of settlement information by users via the mobile terminals 10 for carrying out usage authentications of the mobile terminals 10, and for allocating addresses to the mobile terminals 10 in order for the mobile terminals 10 to carry out network searches. In addition, the central management server 2 is responsive to a given mobile terminal 10 receiving, from a corresponding interface unit 1, a signal relating to termination of connections for releasing the addresses allocated to the given mobile terminal 10, and the central management server 2 transmits charge information with respect to the network connection services of the mobile terminals 10.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1 thru 24 were improperly rejected under 35 U.S.C. §103 for alleged unpatentability over Jansen *et al.*, U.S. Patent No. 6,243,450 in view of Massarani, U.S. Patent No. 6,393,484, and further in view of Hoguta *et al.*, U.S. Patent No. 6,725,303.

VII. ARGUMENT

Grouping of claims

Claims 1 and 2;

Claims 3, 4, 5, 8 and 9;

Claim 6;

Claim 7;

Claim 10;

Claims 11 and 14;

Claim 12;

Claim 13;

Claim 15;

Claim 16;

Claim 17;

Claim 18;

Claim 19;

Claim 20;

Claim 21;

Claim 22;

Claim 23; and

Claim 24.

Justification of Grouping of claims

Independent claim 1 and dependent claim 2 are separately grouped by virtue of the recitation of an Internet interface system comprising the unique and non-obvious combination of an Internet

network, plural interface units and a central management server with the functions recited in the claims.

Dependent claims 3 thru 5, 8 and 9 are separately grouped from claim 1 by virtue of the recitation of each interface unit as comprising the unique and non-obvious combination of a first communication unit, a second communication unit, a storage unit, a settlement unit, an output unit, liquid crystal display (LCD) means, and a control unit with the functions recited in claim 3.

Dependent claim 6 is separately grouped from claims 1 and 3 by virtue of its recitation of the unique and non-obvious feature whereby the storage unit stores driver information for at least one LAN card provided in each interface unit.

Dependent claim 7 is separately grouped from claims 1 and 3 by virtue of its recitation of the unique and non-obvious feature whereby the storage unit stores programs for performing charges for corresponding mobile terminals.

Independent claim 10 is separately grouped by virtue of its recitation of an Internet interface service method comprising the new and non-obvious combination of steps recited in the claim.

Independent claim 11 is separately grouped by virtue of its recitation of an Internet service system comprising the unique and non-obvious combination of plural interface units, one for each

mobile terminal, and a central management server, with the functions recited in the claim.

Dependent claim 12 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby the central management server carries out the usage authentications by communicating with an external settlement server.

Dependent claim 13 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby the central management server transmits the charge information to an external settlement server.

Dependent claim 14 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby the central management server remotely manages the plural interface units.

Dependent claim 15 is separately grouped from claim 11 by virtue of its recitation of each interface unit comprising the unique and non-obvious combination of first and second communication units with the functions recited in the claim.

Dependent claim 16 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby each interface unit comprises a storage unit with the functions recited in the claim.

Dependent claim 17 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby each interface unit comprises a settlement unit with the functions recited in the claim.

Dependent claim 18 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby each interface unit comprises an output unit with the functions recited in the claim.

Dependent claim 19 is separately grouped from claims 11 and 18 by virtue of its recitation of the unique and non-obvious feature whereby each interface unit comprises an LCD means with the functions recited in the claim.

Dependent claim 20 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby each interface unit comprises a control unit with the functions recited in the claim.

Dependent claim 21 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby each interface unit comprises a control unit with the functions recited in the claim.

Dependent claim 22 is separately grouped from claim 11 by virtue of its recitation of the

unique and non-obvious feature whereby each interface unit comprises a control unit with the functions recited in the claim.

Dependent claim 23 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby each interface unit comprises a control unit with the functions recited in the claim.

Dependent claim 24 is separately grouped from claim 11 by virtue of its recitation of the unique and non-obvious feature whereby each interface unit comprises a control unit with the functions recited in the claim.

Patentability Over the Prior Art

Independent claims 1, 10 and 11 recite an Internet interface service system and method by means of which high-speed connection services are provided to mobile terminals carried by respective users in public places. Moreover, independent system claims 1 and 11 recite that the system comprises, among other elements, plural interface units, one for each of the mobile terminals, for connecting the mobile terminals of the respective users to the Internet network so as to provide the respective users with Internet services. This corresponds to the disclosure of Figure 1, which shows a mobile terminal 10 and a corresponding interface unit 1 which connects the mobile terminal 10 to the Internet network 5. As mentioned in paragraph [0019] of the specification, the Internet interface service system includes “plural interface units 1 (only one is shown for the sake of

simplicity) connected to plural mobile terminals 10 (again, only one is shown)” (quoting from paragraph [0019] of the specification). Thus, the specification supports the recitation of the “plural interface units”.

In paragraph 3 on page 2 of the current final Office action, the Examiner states that Jansen *et al.* ‘450 discloses an Internet interface server system which includes “plural interface units”, citing item 38 of Figure 2, and stating that a “plurality of terminals are connected to the Central server” (*see* paragraph 3, line 4 on page 2 of the current final Office action). However, item 38 in Jansen *et al.* ‘450 is merely a collection of connection lines referred to as an “intranet” to which a plurality of vendor servers 27 are connected (*see* column 4, lines 3-4 of the patent). Thus, there is no disclosure or suggestion in Jansen *et al.* ‘450 of the plural interface units, one for each of the plurality of mobile terminals, as recited in independent system claims 1 and 11 of the present application.

On page 9 of the current final Office action, in response to the latter argument, the Examiner expresses disagreement by stating that the “prior art explicitly teaches multiple terminals are envisioned by the invention”, and that the “examiner previously cited Fig. 2, item 38 to denote the plural interface units, one of [sic] each of said mobile terminals” (quoting from the second complete paragraph on page 9 of the final Office action).

However, Jansen *et al.* ‘450 designates item 38 as an “intranet” and/or “private network” (*see*

Figure 2 and column 4, line 1 of Jansen *et al.* '450). In contrast, the independent claims of the present application recite interface units for connecting mobile terminals to an internet network. The latter three elements (underlined in the previous sentence) are not disclosed in Figure 2 of Jansen *et al.* '450; only terminals 10 and internet 38 are shown.

On page 9 of the previous final Office action of 28 January 2005 (Paper No. 012405), the Examiner argued that “[e]ach terminal is an interface unit to the network” (quoting from the page 9, lines 17-18 of the previous final Office action). However, if each terminal in Jansen *et al.* '450 is an interface unit as alleged by the Examiner, then Jansen *et al.* '450 does not disclose a plurality of terminals connected to such interface units. In other words, if each terminal 10 of Figure 2 of Jansen *et al.* '450 is an interface unit as alleged by the Examiner, then what elements in Jansen *et al.* '450 correspond to the claimed mobile terminals? That question was not answered in the previous final Office action of 28 January 2005, and was not answered in the subsequent Office action of 16 November 2005 (Paper No. 111405).

In the third paragraph on page 9 of the current final Office action, the Examiner argues that “plural interface units must inherently exist”. However, this amounts to the expression of an opinion by the Examiner unsupported by citation to any element of Jansen *et al.* '450.

In paragraph 3 on page 2 of the current final Office action, the Examiner also states that Jansen *et al.* '450 discloses a “plurality of terminals” connected to a central server (*see* paragraph

3, line 4 on page 2 of the current final Office action). However, the system and method of independent claims 1, 10 and 11 are distinguishable from Jansen *et al.* '450 by virtue of the recitation of an Internet interface service system and method which provide "high-speed connection services to mobile terminals carried by respective users in public places" (quoting from the preamble of independent claims 1, 10 and 11). In contrast, Jansen *et al.* '450 actually teaches away from the concept of mobile terminals carried by respective users in public places by disclosing, in Figure 1, a permanently or semi-permanently fixed kiosk apparatus containing a computer 14, a display 16, a keyboard 18, a telephone 20, and speakers 43 and 45 to be used by any member of the public who is not carrying his/her own mobile terminal. Thus, not only is this apparatus a non-mobile terminal within the context of the recitation contained in the preamble of claims 1, 10 and 11, but also the apparatus shown in Jansen *et al.* '450 does not provide high-speed connection services to mobile terminals carried by respective users in public places, as recited in claims 1, 10 and 11.

In response to the latter argument, on page 10 of the current final Office action, the Examiner argues that kiosks, "while not analogous to handheld devices, are mobile" (quoting from page 10, lines 4-5 of the current final Office action), that they "may connect via wireless connections" (quoting from page 10, line 6 of the current final Office action), and that they "may be moved from location to location" (quoting from page 10, lines 6-7 of the current final Office action). However, kiosks are clearly not carried by users in public places, and thus they do not fall within the scope of claims 1, 10 and 11 which recite "mobile terminals carried by respective users in public places" (quoting from the claims).

On page 10 of the current final Office action, the Examiner further argues that the prior art teaches mobile terminals carried by users, citing Hoguta *et al.* '303 (column 5, lines 18-32). However, the cited portion of Hoguta *et al.* '303 lists numerous mobile terminals, but kiosks are not included in the list. In any event, Jansen *et al.* '450 teaches away from the invention, and teaches away from the mobile devices listed in Hoguta *et al.* '303, by disclosing permanent or semi-permanent kiosks which clearly cannot be and are not carried by users. Therefore, the combination of the disclosures of Jansen *et al.* '450 and Hoguta *et al.* '303 would not be obvious to one of ordinary skill in the art under 35 U.S.C. §103, as alleged by the Examiner.

On page 3 of the current final Office action, the Examiner states that the terminals of Jansen *et al.* '450 “can be wirelessly located anywhere and therefore are considered mobile” (quoting from page 3, last paragraph, lines 3-4 of the current final Office action). Whereas the Examiner may be correct that terminals which are wirelessly connected to the Internet can be moved from one location to another, the terminals or kiosks disclosed in Jansen *et al.* '450 (*see* Figure 1, in particular) are clearly not “mobile terminals carried by respective users in public places”, as recited in claims 1, 10 and 11. Thus, the invention recited in the claims is distinguishable from the disclosure of Jansen *et al.* '450 so as to preclude rejection under 35 U.S.C. §103.

On page 9 of the current final Office action, the Examiner states that the recitation of mobile terminals carried by respective users in public places “has not been given patentable weight because the recitation occurs in the preamble” (quoting from the last paragraph on page 9 of the final Office

action). It is respectfully submitted that, although the recitation is included in the preamble, it should be given patentable weight because the elements or steps of the independent claims are based on the need to provide such mobile terminals.

On page 3 of the current final Office action, the Examiner admits that Jansen *et al.* '450 "does not explicitly teach a central management server allocating dynamic IP addresses" as well as a "central management server being responsive to the mobile terminals receiving from the interface units a signal terminating the Internet connections for releasing the dynamic IP addresses allocated to the mobile terminals" (quoting from page 3, lines 1-5 of the current final Office action). Therefore, the Examiner cites Massarani '484. However, the Examiner does not state where, in the disclosure of Jansen *et al.* '450, there is any statement, motivation or instruction to a person of ordinary skill in the art, motivating or instructing that person to seek and incorporate the disclosure of Massarani '484. Thus, on this additional basis, a rejection under 35 U.S.C. §103 based on the combination of references cited by the Examiner must be considered to be an invalid combination under the statute.

In response, in the last paragraph on page 10 of the current final Office action, the Examiner alleges that there "is not a requirement that the prior art explicitly state a motivation to combine" (quoting from the first two lines of the last paragraph on page 10 of the current final Office action). The Examiner instead states a requirement that the prior art either be in the field of applicant's endeavor or be reasonably pertinent to the particular problem with which the applicant is concerned

(see lines 2-4 of the last paragraph on page 10 of the current final Office action). Appellants submit that, whereas the latter two requirements may be legitimate requirements for citing a reference, those requirements are set forth in order to insure that one of ordinary skill in the art, as of the date of the invention, would be motivated or instructed, and find it obvious, to modify the primary reference in accordance with the disclosure of the secondary reference(s). In this case, there is no such motivation evident in Jansen *et al.* '450 or the other cited references.

On page 10 of the previous final Office action of 28 January 2005 (Paper No. 012405), the Examiner stated recognition "that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art" (quoting from page 10, lines 5-8 of the previous final Office action). However, in the present case, there is no disclosure or suggestion in the references cited by the Examiner of each and every element and function or method step claimed in the present application. In fact, in some respects, the Examiner has admitted that the prior art references cited herein do not disclose or suggest certain elements and functions or method steps as claimed.

With respect to "knowledge generally available to one of ordinary skill in the art" (quoting from page 10, line 8 of the previous final Office action of 28 January 2005), the Examiner has not placed on the record any evidence, in the form of prior patents or publications, of what knowledge

was generally available to one of ordinary skill in the art as of the date of the invention. Instead, the Examiner has relied on his own opinion, and this is not permissible under 35 U.S.C. §103.

In the latter regard, the Examiner has stated that “Jansen teaches a pay-per use distributed network service”, that “Massarani teaches a system and method for improving network access in distributed networks in semi-public Internet networks”, and that “[t]he artisan of ordinary skill in implementing the system of Jansen, would have been motivated to implement methods to enhance the efficiency of the network in which the system resides” (quoting from page 10, lines 10-14 of the previous final Office action of 28 January 2005 (Paper No. 012405)). However, these general statements by the Examiner do not amount to an explicit statement as to where, in the prior references cited by the Examiner, there is a disclosure or suggestion of each and every element and function or method step as claimed. Furthermore, with respect to the final statement relative to motivation of the “artisan of ordinary skill”, the Examiner has not cited any evidence, in the form of citation to prior patents or publications, to support the Examiner’s opinion that the “artisan of ordinary skill in implementing the system of Jansen, would have been motivated to implement methods to enhance the efficiency of the network in which the system resides” (again, quoting from page 10, lines 12-14 of the previous final Office action of 28 January 2005). It is submitted that the only reason that the Examiner considers the differences between the claimed invention and the cited references to be “obvious” is that the Examiner, unlike the person of ordinary skill in the art as of the time of the invention, has had the benefit of reviewing and studying the disclosure of the present application, and is exercising improper hindsight in combining the references and modifying the

combined disclosure and the references in order to arrive at the present invention. Needless to say, such a practice is an improper practice in combining references under 35 U.S.C. §103.

In the latter regard, it is also noted that Figure 1 of Massarani '484 discloses a DHCP server 30 and an authentication server 36. Presumably, the DHCP server 30 is alleged by the Examiner to perform the functions of dynamic IP address allocation and release of the dynamic IP addresses allocated to the mobile terminals upon termination of the Internet connection, as recited in the claims. However, it is also noted that the arrangement of Figure 1 of Massarani '484 is entirely distinct and different from the arrangement of the central server generally disclosed in Figure 1 and specifically disclosed in Figure 3 of Jansen *et al.* '450. Thus, it is submitted that one of ordinary skill in the art, even if motivated to seek the disclosure of Massarani '484 for the purpose of modifying the disclosure of Jansen *et al.* '450, would not receive sufficient instruction from either of the two references so as to be able to incorporate the server 30 of Massarani '484 into the kiosk apparatus arrangement of Figures 2 and 3 of Jansen *et al.* '450. Moreover, even if one of ordinary skill in the art were so instructed and motivated, it is not clear from the disclosures of the two patents, or from the previous and current Office actions themselves, that incorporation of the server 30 of Massarani '484 into the arrangement of Jansen *et al.* '450 would result in the present invention, as recited in the claims. Thus, on this additional basis, a rejection under 35 U.S.C. §103 based on the combination of references cited by the Examiner must be considered improper, and should be withdrawn.

For the reasons stated above, it is submitted that the inventive system and method, as recited in independent claims 1, 10 and 11, is distinguishable from the cited prior art by the Examiner so as to preclude rejection under 35 U.S.C. §103.

The dependent claims of the present application provide further bases for distinguishing the invention from the cited prior art. For example, dependent claims 3 and 15 recite that each interface unit comprises a first communication unit and a second communication unit with the functions recited in the claims. In paragraph 5 of the current final Office action, the Examiner cites element 104 of Figure 4 of Jansen *et al.* '450 as allegedly corresponding to the recited "first communication unit", and cites elements 46, 48 and 50 of Figure 3 of Jansen *et al.* '450 as allegedly corresponding to the recited "second communication unit". However, it should be recalled that, with respect to the recited "interface units", the Examiner (in paragraph 3 on page 2 of the current final Office action) states that element 38 of Figure 2 of Jansen *et al.* '450 (entitled "intranet") corresponds to the recited "interface units". However, element 38 of Jansen *et al.* '450 appears (in Figure 2 thereof) to be merely communication lines external to, and interconnecting, kiosk terminals 10 to the servers 26 and 27. Furthermore, element 104 of Figure 4 of Jansen *et al.* '450 (which the Examiner characterizes as corresponding to the recited "first communication unit") is an Ethernet interface 104 contained within the multimedia terminal itself (*see* Figure 4 of the patent), whereas claims 3 and 15 (and their preceding claims) make it clear that the interface units, which contain the first and second communication units, are separate and apart from the mobile terminals which they serve. In addition, elements 46, 48 and 50 of Figure 3 of Jansen *et al.* '450 (which, according to the Examiner,

correspond to the recited “second communication unit”) are individual servers contained within the central server 26 (which, according to the Examiner, corresponds to the recited “central management server”) of the claims. In contrast, the claimed second communication unit resides in the interface unit which, according to the claims, is an element separate and apart from the central management server recited in the claims.

Further considering dependent claim 3, the Examiner states (in the first complete paragraph on page 5 of the current final Office action) that the settlement unit recited in the claims corresponds to element 70 of Figure 3 of Jansen *et al.* ‘450. However, element 70 of Figure 3 of the cited patent is a credit card service “such as a Chemical Bank” (*see* column 4, lines 65 of Jansen *et al.* ‘450) external to a multimedia terminal and any interface, whereas the settlement unit recited in dependent claim 3 is an element contained within the interface unit associated with the mobile terminal.

In the last paragraph on page 5 of the current final Office action, the Examiner alleges that element 82 of Jansen *et al.* ‘450 corresponds to the “control unit” recited in dependent claim 3. However, element 82 of Figure 4 of the cited patent is a microprocessor contained within the multimedia terminal itself, whereas the recited “control unit” is a part of the interface unit which, according to the claims, is an element separate and apart from the mobile terminals.

It should be noted that the observations above relative to the settlement unit and control unit recited in dependent claim 3 apply also to the settlement unit recited in dependent claim 17 and the

control unit recited in dependent claims 20 thru 24. Thus, for the same reasons stated above relative to dependent claim 3, dependent claims 17 and 20 thru 24 provide further bases for distinguishing the invention from the prior art cited by the Examiner so as to preclude rejection under 35 U.S.C. §103.

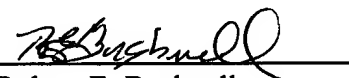
In the second complete paragraph on page 5 of the current final Office action, the Examiner cites column 2, line 22 - column 3, line 25 of Hoguta *et al.* '303 as corresponding to the "output unit" recited in claim 3. However, a review of the cited portion of Hoguta *et al.* '303 reveals that the reference does not disclose mobile terminals as recited in the claims of the present application. Rather, reference is made to "home terminals" and to "hotel terminals", the latter being customized to look like "home terminals". In any event, the terminals discussed in Hoguta *et al.* '303 are clearly not mobile terminals, but rather are fixed terminals located either in the home of a user or in a hotel. This raises a question as to the propriety of citing Hoguta *et al.* '303 against the claims of the present application, and a further question as to the propriety of combining Hoguta *et al.* '303 with the other references.

To summarize, the combination of references cited by the Examiner under 35 U.S.C. §103 does not disclose or suggest each and every element and function recited in independent claims 1, 10 and 11, as well as various dependent claims of the present application. Moreover, there is no statement in Jansen *et al.* '450, cited in the current final Office action, which would provide motivation or instruction to a person of ordinary skill in the art so as to enable that person to seek

the secondary references in question, and to incorporate those references into a modification of Jansen *et al.* '450 so as to render obvious the claimed invention. For these reasons, a rejection under 35 U.S.C. §103 based on the cited combination of references should be considered improper, and should be overruled.

In view of the law and facts stated herein, as well as all of the foregoing reasons, Appellants believe that the rejection is improper, and respectfully request that the Board refuse to sustain the outstanding rejection of claims 1 thru 24 under 35 U.S.C. §103.

Respectfully submitted,



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VIII. APPENDIX

CLAIMS UNDER APPEAL (1-24)

1 1. (Previously Presented) An internet interface service system providing high-speed
2 connection services to mobile terminals carried by respective users in public places, said system
3 comprising:

4 an internet network for providing the high-speed connection services;

5 plural interface units, one for each of said mobile terminals, for connecting the mobile
6 terminals of said respective users to the internet network so as to provide the respective users with
7 internet services; and

8 a central management server connected to the internet network and responsive to the input
9 into the interface units of settlement information relating to the mobile terminals for carrying out
10 usage authentications of the mobile terminals by performing data communications with an external
11 settlement server which carries out settlements upon reception of the settlement information from
12 the interface units, said central management server allocating dynamic IP addresses enabling the
13 mobile terminals to carry out internet searches, and said central management server being responsive
14 to reception, by a given mobile terminal from a corresponding interface unit, of a signal terminating
15 a corresponding internet connection for releasing a corresponding dynamic IP address allocated to
16 the given mobile terminal and for transmitting charge information with respect to a corresponding
17 internet connection service of the given mobile terminal.

1 2. (Original) The internet interface service system as claimed in claim 1, wherein the
2 mobile terminals are at least one of notebook computers, palm top computers, network computers
3 and PDAs.

1 3. (Previously Presented) The internet interface service system as claimed in claim 1,
2 wherein each interface unit comprises:

3 a first communication unit connected to a corresponding mobile terminal;

4 a second communication unit connected to the internet network for performing
5 communications with the central management server via the internet network, for transmitting a
6 mobile terminal-requested signal to the internet network, and for enabling said each interface unit
7 to receive a signal comprising information searched in the internet network;

8 a storage unit for storing at least one of communication port activation data for said each
9 interface unit, settlement information, encryption data, and deciphering data, and for storing
10 operating programs for carrying out input and output with respect to usage information of the
11 corresponding mobile terminal;

12 a settlement unit responsive to user input of settlement information into the corresponding
13 mobile terminal in order to settle charges for the use of said each interface unit of the corresponding
14 mobile terminal for reading and transmitting the settlement information from the corresponding
15 mobile terminal;

16 an output unit responsive to connection of the corresponding mobile terminal to said each
17 interface unit, input of the settlement information by the user, approval of the settlement information
18 by the central management server, conduct of work through the internet network, and termination
19 of the conducted work, for outputting a statement of usage charges with respect to the usage times
20 of the corresponding mobile terminal;

21 liquid crystal display (LCD) means for displaying the statement outputted by the output unit
22 for visual confirmation of the user, and for performing a function as a user interface for the user; and

23 a control unit responsive to connection of the corresponding mobile terminal to the first
24 communication unit for activating a communication channel for the corresponding mobile terminal,
25 for transmitting to the external settlement server the settlement information of the user, responsive
26 to an approval signal for receiving the dynamic IP addresses from the central management server for
27 allocation to the corresponding mobile terminal, for storing in the storage unit charge information
28 with respect to the connections of the corresponding mobile terminal, for outputting the charge
29 information from the storage unit to the output unit and the liquid crystal display means while, at the
30 same time, transmitting the charge information to the central management server and the settlement
31 server through the second communication unit when the connections of the corresponding mobile
32 terminal and said each internet interface unit are terminated, and for transmitting to the central
33 management server a signal releasing the allocated dynamic IP addresses.

1 4. (Previously Presented) The internet interface service system as claimed in claim 3,
2 further comprising a local area network (LAN) cable for connection between the first communication
3 unit and the corresponding mobile terminal.

1 5. (Previously Presented) The internet interface service system as claimed in claim 4,
2 wherein the LAN cable is connected to a LAN card mounted in the corresponding mobile terminal.

1 6. (Previously Presented) The internet interface service system as claimed in claim 3,
2 wherein the storage unit stores driver information for at least one LAN card provided in said each
3 interface unit.

1 7. (Previously Presented) The internet interface service system as claimed in claim 3,
2 wherein the storage unit stores programs for performing charges for the corresponding mobile
3 terminal.

1 8. (Original) The internet interface service system as claimed in claim 3, wherein the
2 settlement unit is a card reader for reading a credit card.

1 9. (Original) The internet interface service system as claimed in claim 3, wherein the
2 second communication unit carries out wireless communications.

1 10. (Previously Presented) An internet interface service method providing high-speed
2 connection services to mobile terminals carried by respective users in public places, comprising the
3 steps of:

4 when a mobile terminal of a user and an internet interface unit are connected by any of a local
5 area network (LAN) cable provided in a first communication unit and a LAN cable connected to a
6 LAN card, establishing a communication channel with the mobile terminal by use of a control unit
7 so as to activate a communication unit in the mobile terminal, the control unit being included in the
8 internet interface unit;

9 outputting from the control unit a message requesting user entry of settlement information
10 in order to settle charges for use of the internet interface unit by the mobile terminal of the user after
11 the establishment of the communication channel, and, when the user enters the settlement
12 information, reading the settlement information, transmitting the settlement information to a
13 settlement server through a central management server, and receiving a settlement approval from the

14 settlement server;

15 after receiving the settlement approval, receiving a dynamic IP address from the central
16 management server, allocating the received dynamic IP address to the mobile terminal, and
17 performing data communications by means of the data terminal through the internet interface unit
18 and an internet network connected to the internet interface unit; and

19 when a predetermined connection termination signal is inputted to the internet interface unit
20 by a connection termination menu provided in one of the mobile terminal and the internet interface
21 unit, terminating the communication channel of the mobile terminal by means of the control unit,
22 outputting charge information stored in a storage unit to an output unit and a display unit while, at
23 the same time, transmitting the charge information by means of the control unit to the central
24 management server and the settlement server through a second communication unit, thereby
25 performing a charging function.

1 11. (Previously Presented) An interface service system for use with a network providing
2 high-speed connection service to mobile terminals carried by users in public places, said system
3 comprising:

4 plural interface units, one for each mobile terminal, for connecting said each mobile terminal
5 to the network; and

6 a central management server for controlling use of the interface units by the mobile terminals;
7 wherein said central management server is responsive to entry of settlement information by
8 users via the mobile terminals for carrying out usage authentications of the mobile terminals, and
9 for allocating addresses to the mobile terminals in order for the mobile terminals to carry out network
10 searches;

11 wherein said central management server is responsive to a given mobile terminal receiving,
12 from a corresponding interface unit, a signal relating to termination of connections for releasing the
13 addresses allocated to the given mobile terminal; and

14 wherein said central management server transmits charge information with respect to the
15 network connection services of the mobile terminals.

1 12. (Original) The interface service system as claimed in claim 11, wherein said central
2 management server carries out the usage authentications by communicating with an external
3 settlement server.

1 13. (Original) The interface service system as claimed in claim 11, wherein said central
2 management server transmits the charge information to an external settlement server.

1 14. (Original) The interface service system as claimed in claim 11, wherein said central
2 management server remotely manages the plural interface units.

1 15. (Previously Presented) The interface service system as claimed in claim 11, wherein
2 each interface unit comprises:

3 a first communication unit connected to a corresponding mobile terminal; and
4 a second communication unit connected to the network for performing communications with
5 the central management server via the network, for transmitting a mobile terminal-requested signal
6 to the network, and for enabling said each interface unit to receive a signal comprising information
7 searched in the network.

1 16. (Previously Presented) The interface service system as claimed in claim 11, wherein
2 each interface unit comprises:

3 a storage unit for storing at least one of communication port activation data for said each
4 interface unit, settlement information, encryption data and deciphering data, and for storing operating
5 programs for carrying out input and output with respect to usage information of a corresponding
6 mobile terminal.

1 17. (Previously Presented) The interface service system as claimed in claim 11, wherein
2 each interface unit comprises:

3 a settlement unit responsive to user input of settlement information into a corresponding
4 mobile terminal in order to settle charges for the use of said each interface unit of the corresponding
5 mobile terminal for reading and transmitting the settlement information from the corresponding
6 mobile terminal.

1 18. (Previously Presented) The interface service system as claimed in claim 11, wherein
2 each interface unit comprises:

3 an output unit responsive to connection of a corresponding mobile terminal to said each
4 interface unit, input of the settlement information by the user, approval of the settlement information
5 by the central management server, conduct of work through the network, and termination of the
6 conducted work for outputting a statement of usage charges with respect to the usage times of the
7 corresponding mobile terminal.

1 19. (Previously Presented) The interface service system as claimed in claim 18, wherein
2 each interface unit comprises:

3 liquid crystal display (LCD) means for displaying the statement outputted by the output unit
4 for visual confirmation of the user, and for performing a function as a user interface for the user.

1 20. (Previously Presented) The interface service system as claimed in claim 11, wherein
2 each interface unit comprises:

3 a control unit responsive to connection of a corresponding mobile terminal to the first
4 communication unit for activating communication channels for the corresponding mobile terminal.

1 21. (Previously Presented) The interface service system as claimed in claim 11, wherein
2 each interface unit comprises:

3 a control unit for transmitting, to an external settlement server, the settlement information
4 input by the user.

1 22. (Previously Presented) The interface service system as claimed in claim 11, wherein
2 each interface unit comprises:

3 a control unit responsive to an approval signal for receiving the addresses for allocation to
4 a corresponding mobile terminal.

1 23. (Previously Presented) The interface service system as claimed in claim 11, wherein
2 each interface unit comprises:

3 a control unit which receives the addresses for allocation to a corresponding mobile terminal,
4 stores in a storage unit charge information with respect to connections of the corresponding mobile
5 terminal, outputs the charge information from the storage unit to an output unit and a liquid crystal
6 display while, at the same time, transmitting the charge information to the central management server
7 and a settlement server through a communication unit when the connection of the corresponding
8 mobile terminal to said each interface unit is terminated.

1 24. (Previously Presented) The interface service system as claimed in claim 11, wherein
2 each interface unit comprises:

3 a control unit which transmits, to the central management server, a signal releasing the
4 allocated addresses.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.